Claims

1. Device for clamping the rim of a vehicle wheel, in particular for mounting tires, having a shelf, on which the rim may be deposited by one side, and having at least two clamping jaws, which are movable radially relative to the rim for clamping the rim bead adjacent to the shelf, characterized in that the clamping jaws (12 to 15) comprise contact faces (20), which cooperate with the axial outer side of the rim bead, and clamping claws (21), which may be pressed onto the rim bead radially from the exterior, and in that a free space extends in the axial and radial direction leading away from the rim, on the back, turned away from the rim bead, of at least one clamping claw (21).

2. Device according to claim 1, characterized by two pairs of clamping jaws (12 to 15), of which the paths of movement intersect, in particular at right angles, and in that a drive, which synchronously moves the clamping jaws (12 to 15) into a clamping position pressed against the rim of the vehicle wheel, is provided.

3. Device according to claim 2, characterized in that the clamping jaws (12 to 15) comprise clamping faces which may be pressed against the rim at two mutually spaced points.

4. Device according to any one of the preceding claims, characterized in that the clamping jaws (12 to 15) are mounted on a cross-shaped carrier (1) by means of slides (8 to 11), which are guided with minimal friction.

5. Device according to any one of the preceding claims, characterized in that the clamping jaws (12 to 15) are arranged on supports, which extend from the slides (8 to 11) to a shelf located above the cross-shaped carrier (1).

6. Device according to any one of the preceding claims, characterized in that the drive comprises a gear unit (27) having a rotatable disc (28), of which the rotational axis extends in the centre of the paths of movement of the clamping jaws (12 to 15) and at right angles to the paths of movement, each clamping jaw (12 to 15) being connected to

the disc (28) in a movement-transferring manner by a rod (29, 30), the rod (29, 30) being attached to the clamping jaws (12 to 15) and the disc (28) by means of joints.

7. Device according to claim 6, characterized in that the length of the rods (29, 30) is adjustable.

8. Device according to any one of the preceding claims, characterized in that the clamping jaws (12 to 15) comprise a clamping claw (21), which overlaps the rim bead, and a shelf face (20), which is situated in the plane of the support (35).

9. Device according to any one of the preceding claims, characterized in that the shelf (35) that is arranged between the clamping jaws (12 to 15) comprises at least two mutually spaced, parallel flexible belts (36), which are guided on the clamping jaws (12, 13) of one pair via deflecting pulleys (37, 38) and which are attached to the cross-shaped carrier (1) by their ends.

10. Device according to claim 9, characterized in that the flexible belts (36) are guided over first deflecting pulleys (37) arranged before the clamping jaws (12, 13) and are deflected thereon in the direction of the cross-shaped carrier (1) and are then guided over second deflecting pulleys (38) arranged between the shelf plane and the cross-shaped carrier (1) and are deflected thereby into a plane, which is parallel to the shelf plane and contains the points for attaching the belts (36) to the cross-shaped carriers (1).

11. Device according to either claim 9 or claim 10, characterized in that supports, on which the belts (36) rest, are arranged on the cross-shaped carrier (1) centrally between the clamping jaws (12, 13).

12. Device according to any one of the preceding claims, characterized in that a hydraulic or pneumatic cylinder (22), of which the cylinder housing (23) is connected to the support of one clamping jaw (13) and of which the piston rod (25) is connected to the support of the other clamping jaw (12), is arranged below the shelf plane between the supports of two opposing clamping jaws (12, 13).

13. Device according to any one of the preceding claims, characterized in that a centering arbor (43), which is movable perpendicularly to the shelf plane, is arranged centrally between the clamping jaws (12 to 15).